

Abstract

The process for preparing highly reactive polyisobutenes having a terminal vinylidene group content of more than 80 mol% and an average molecular weight of from 500 to 5000 dalton by cationic polymerization of isobutene in the liquid phase in the presence of a complex comprising boron trifluoride at from +40°C to -60°C comprises polymerizing in the presence of a complex comprising boron trifluoride and

- a) a primary alcohol having 1-20 carbon atoms or a secondary
  alcohol having 3-20 carbon atoms, or a mixture of these alcohols, and
  - b) an ether containing no tertiary alkyl groups and having the formula I

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 $R^{1}-O-R^{2}$  I,

where  $R^1$  and  $R^2$  are primary or secondary alkyl groups having 3-10 carbon atoms, with the proviso that at least one of  $R^1$  and  $R^2$  is a secondary alkyl group.

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